

# Tutorial 1

## Exercise 1

Without using the computer, dry run the following Python program.

```
h = 6
print("The height of the tree is :")
print(h)

if h > 10:
    print("It is a tall tree")
elif h <= 3:
    print("It is a short tree")
else:
    print("It is a medium tree")

i = 0
while i < h:
    j = 0
    while j < i + 1:
        print("*", end = ' ')
        j += 1
    print()
    i += 1
```



### **Exercise 2**

Write a python program that calculates the sum of odd number up to  $n=17$ .

### **Exercise 3**

Write a program that counts the number of vowels of a string in the first argument to the program. That is,

E.g.

```
text = "asdfasdofy99mnbpki"
```

*It should give the following output:*

```
Number of vowels in the word:  
asdfasdofy99mnbpki  
is  
4
```

### **Exercise 4**

Write a Python program that shows the boundary elements in a matrix.

That is, given `int A[][] = { { 1, 2, 3, 4 }, { 5, 6, 7, 8 }, { 2, 3, 5, 9 } }`,

The expected output:

```
The Boundary Elements are:  
1      2      3      4  
5              8  
2      3      5      9
```

Hint:

<https://www.journaldev.com/23642/python-concatenate-string-and-int>

<https://www.geeksforgeeks.org/print-without-newline-python/>